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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/559,799	04/27/2000	Ai-Zhi Piao	T8275	2670

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EXAMINER

DEWITTY, ROBERT M

ART UNIT PAPER NUMBER

1616

DATE MAILED: 04/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/559,799

Applicant(s)

PIAO ET AL.

Examiner

Robert M DeWitty

Art Unit

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) 14-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-36 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claims 1-36 are pending in the instant application. Claims 14-36 have been withdrawn as being drawn to non-elected inventions.

Election/Restrictions

1. Applicant's election with traverse of the restriction requirement in Paper No. 4 is acknowledged. The traversal is on the ground(s) that the examiner has not submitted evidence that of materially different processes or uses between the various inventions. This is not found persuasive because the divergent subject matter between the inventions is established by their different classifications (in different classes, or in different subclasses). The fact that the inventions are divergent establishes that to search all inventions would create an undue burden on the examiner.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Bromberg et al. (U.S. Pat. No. 5,939,485).

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Bromberg relates to polymer compositions which exhibit reversible gelation in response to a change in temperature or other environmental status. The compositions have improved stability over simple blends of the constituent polymers (col. 2, lines 57-62). The composition consists of a responsive polymer network made of a responsive component and a structural component (col. 5, lines 66-col. 6, lines 5). The responsive component may be any polymer which forms aggregates as a function of temperature. The responsive component typically possess regions of hydrophobic and hydrophilic character (col. 7, lines 15-20). Suitable responsive components include POP, and POE, and triblock polymers (such as Pluronic). One or more responsive components may be used in the responsive polymer network composition of Bromberg's invention (col. 7, lines 25-53). At example 7, column 25, Bromberg teaches one block of the triblock composition having a molecular weight of 3250, and another block of the triblock composition having a molecular weight of over 5700 (see example 6, line 38).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bromberg et al. (U.S. Pat. No. 5,939,485), further in view of Rath et al. (U.S. Pat. No. 6,117,949).

Bromberg relates to polymer compositions which exhibit reversible gelation in response to a change in temperature or other environmental status. The compositions have improved stability over simple blends of the constituent polymers (col. 2, lines 57-62). The composition consists of a responsive polymer network made of a responsive component and a structural component (col. 5, lines 66-col. 6, lines 5). The responsive component may be any polymer which forms aggregates as a function of temperature. The responsive component typically possess regions of hydrophobic and hydrophilic character (col. 7, lines 15-20). Suitable responsive components include POP, and POE, and triblock polymers (such as Pluronic). One or more responsive components may be used in the responsive polymer network composition of Bromberg's invention (col. 7, lines 25-53).

It is understood that one or more responsive components, including one or more triblock polymers, may be used in the invention of Bromberg.

Rathi relates to water soluble biodegradable ABA or BAB-type triblock polymers for drug delivery systems. The triblock polymers are made up of a major amount of a hydrophobic polymer made of poly(lactide-co-glycolide) copolymer and a minor amount of a hydrophilic polyethylene glycol polymer (Abstract). The triblock copolymer drug delivery systems are biodegradeable, exhibit reverse thermal gelation behaviour, and provide good drug release characteristics (col. 5, lines 26-33). The average molecular weight of each polymeric A block is between about 600 and 3000 (col. 8, lines 53-56). The average molecular weight of each B-block segment is between about 500 and 2200 (col. 8, lines 59-61).

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Based on the art available at the time the invention was made, one with ordinary skill in the art would have been motivated to utilize two triblock polymers such as ABA or BAB (as taught in Rathi) because such triblocks are biodegradable, exhibit reverse thermal gelation behaviour, and have good release characteristics. As stated earlier, Bromberg explicitly teaches that the responsive component can consist on more than one element which, to the examiner's understanding, includes triblock polymers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M DeWitty whose telephone number is 703-308-2411. The examiner can normally be reached on 9:00am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jose Dees can be reached on 703-308-4527. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7924 for regular communications and 703-308-7924 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

RMD
April 7, 2002



NEIL S. LEVY
PRIMARY EXAMINER